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Calendar of Events

NOVEMBER 2003
 17 & 18
 State Hazard Mitigation
 Planning Course
 SLC, Utah

MAY 2004
 17-21
 5th Inter-Mountain
 HazMat Conference
 Park City, Utah

TBA
 Seismic Hazards Summit II
 Reno, Nevada

SEPTEMBER 2004
 TBA
 WSSPC Annual Conference
 St. Louis, Missouri

**Next issue look for
 more U of U
 Quarterly Seismicity.**

**UTAH SEISMIC SAFETY COMMISSION MEETING MINUTES
 JULY 18TH, 2003 BY AMISHA LESTER**

The Utah Seismic Safety Commission (USSC) held its July Meeting in Salt Lake City, Utah.

Barry Welliver introduced the meeting's theme by briefly commenting on three potential areas of discussion.

- *"Image Is Everything"*-Our Strategic Plans portray a Commission confident in its recommendations and active in its pursuit of accomplishing the work of those plans. Building an image readily associated as an authoritative voice on earthquake safety in the state should be a priority.
- *"Success Stories"*-There are a variety of examples to help formulate a program to build a documentation library. California's "Annual Report and Earthquake Risk Management: Mitigation Success Stories" is aimed at keeping the stories alive in the minds of those affected by and responsible for earthquake safety.
- *"Business Strategy"*-Developing a mission statement which accurately reflects the priorities and interests of the Commission, is crucial to creating a business plan.

Walter Arabasz suggested backing up one step before taking a shotgun approach to specific problems. He suggested developing a matrix approach to help quantify the problem. Beginning with a premise such as "reduce loss of life and destruction", it would seem appropriate to see where the biggest contributors are. Taking a more objective look at the earthquake problem may lead to some formulation in prioritizing specific actions.

It was suggested that a subset of the full Commission would work on this matrix of ideas and bring it before the entire Commission for emphasis and direction. Several Commissioners volunteered to be a part of this special study group in addition to the Chair and Vice-Chairs.

Other Commission notes... Gary Christenson will replace Francis Ashland as staff for the Utah Seismic Safety Commission from the Utah Geological Survey. USSC thanks Frank for his hard work and welcomes Gary. As part of the USSC's student grant program, a group of students from North Summit Middle School presented a report on their investigation of the Hebgen Lake area to study the area's historic earthquake. The group noted the formation of Earthquake Lake and the surrounding destruction.

UTAH SEISMIC SAFETY COMMISSION MEETING MINUTES
APRIL 11, 2003 BY AMISHA LESTER

The Utah Seismic Safety Commission's (USSC) quarterly meeting was an open discussion on future directions for the Commission. The Commission came to consensus on the following ideas:

- The Commission should be a catalyst in giving its support and endorsement to other agencies, groups and organizations as well as seeking support and endorsement from these same agencies, groups, and organizations.**
- The Commission should be a mouthpiece to enhance the level of information to the public and its awareness of earthquake safety.**
- The Commission should give formal recognition to other agencies, groups, and organizations for their level of involvement within the earthquake awareness community.**
- The Commission should help fund programs that are currently working on earthquake preparedness.**
- The Commission needs to enhance the level of information given to the public.**
- The Commission wants to help communities to become more involved in seismic safety.**
- The Commission should have an annual conference on earthquake awareness.**

Other Commission notes... Commissioners were told that as part of a reauthorization of state departments that the Commission's no longer subject to a Sunset Law. The Legislature, in reauthorizing the Department of Public Safety, also included the USSC as one of the agencies to be removed for any Sunset Law. The UGS reported that the USGS is returning to the Wasatch Front. They are creating several working groups to develop an comprehensive plan of geoscience investigations over the next 5 to 10 years. These working groups are currently developing a plan for the next generation of ground-shaking and liquefaction hazard maps. The USGS would like to have these plans officially adopted by the State as part of the State plan. The USSC will be involved in workshops on these issues and will help endorse these issues.

PRE-DISASTER MITIGATION (PDM) PROGRAM

BY BOB CAREY

The PDM program was authorized by section 203 of the Robert T. Stafford Disaster Assistance and Emergency Relief Act (Stafford Act), 42 U.S.C. 5133, as amended by section 102 of the Disaster Mitigation Act of 2000 (DMA), to provide technical and financial assistance to States and local governments, including Indian Tribal governments, to assist in the implementation of pre-disaster hazard mitigation measures that are cost-effective and are designed to reduce injuries, loss of life, and damage and destruction of property, including damage to critical services and facilities under the jurisdiction of the States or local governments. The DMA emphasizes the importance of strong State and local planning and comprehensive program management at the State level.

The PDM program provides a significant opportunity to raise risk awareness and to reduce the Nation's disaster losses through pre-disaster mitigation planning and the implementation of planned, pre-identified, cost-effective mitigation measures. For Fiscal Year (FY) 2003, funds will be awarded on a competitive basis with a National priority, but not exclusively, on funding mitigation projects that address National Flood Insurance Program (NFIP) repetitive flood loss properties.

On February 26, 2002, Federal Emergency Management Agency (FEMA) published 44CFR parts 201 and 206 – Hazard Mitigation Planning and Hazard Mitigation Grants Program: Interim Final Rule in the Federal Register. This Rule, required by the DMA, outlines new requirements for both state and local mitigation plans. For disasters declared after November 1, 2003, local governments must have a hazard mitigation plan approved by FEMA to remain eligible for funding from the Hazard Mitigation Grant Program (HMGP) and PDM. Plans must be approved by the State and FEMA within one year after the community receives the HMGP grant. If the plan is not approved in the time period or before, all unspent funds must be returned to FEMA.

The hazard mitigation plans will be adopted by an appropriate governing body and have four required areas of emphasis, 1) documentation of the planning process, 2) risk assessment, 3) mitigation strategies, and 4) plan maintenance. All hazard mitigation plans will be submitted to the State Hazard Mitigation Office and reviewed by the Utah Division of Emergency Services' Operations and Natural Hazards Section. When finally accepted, the plans will be forward to the FEMA Regional Office for formal review and approval.

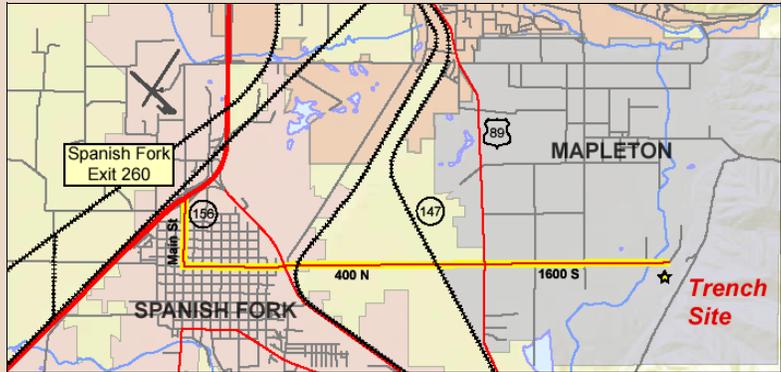
MAPLETON TRENCHING PROJECT

BY BOB CAREY

The Utah Geological Survey and the URS Corporation are leads in a cooperative trenching project. Located southeast of Mapleton, the trench is 10 to 12 meters wide, up to 9 meters deep, and about 100 meters long. It exposes 4 large normal faults in the footwall and a complex of anti-thetic faults in the hanging wall that form a wide graben. The faults form a steep, large scarp and offset post-Bonneville alluvial fan deposits with over 19 meters of net vertical tectonic displacement. Geologists have discovered direct stratigraphic and structural evidence for possibly 7 separate surface-faulting earthquakes. However, there is also indirect evidence for an additional slip which needs additional study that pre-dates all of these events.

The project was made possible by a host of cooperative efforts. Groups involved with this project include: the Utah Geological Survey, the URS Corporation, the US Geological Survey, the University of California-San Diego, the University of Utah, Western GeoLogic, Simon-Bymaster, Inc., Richard Stockton College, Zion Securities, Suburban Land Reserve, AMEC, RB&G, and the City of Mapleton.

Taken from a communiqué by Susan Olig, URS Corporation.



Location of trench site in Mapleton.



Looking east at the mega-trench across the Wasatch Fault. Note surveyor at top left of the trench.

ANNUAL ELECTION OF CHAIR AND CO-CHAIR FOR THE UTAH SEISMIC SAFETY COMMISSION



On July 18th, 2003, the Utah Seismic Safety Commission held its annual election of Chair and Co-Chair. Barry H. Welliver has been voted as the Chair and the position of Vice-Chair has been expanded to include Peter McDonough and Rick Allis as Vice-Chairs for the coming year.

UNIVERSITY OF UTAH QUARTERLY SEISMICITY SUMMARY

EARTHQUAKE ACTIVITY IN THE UTAH REGION January 1 - March 31, 2002

by Susan J. Nava
with significant contributions by Jeff
Fotheringham and Fabia Terra
University of Utah Seismograph Stations
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During the three-month period from January 1 through March 31, 2002, the University of Utah Seismograph Stations located 201 earthquakes within the Utah region (see accompanying epicenter map). The total includes two earthquakes in the magnitude 3 range and 69 earthquakes in the magnitude 2 range.

Earthquakes that have magnitudes of 3.0 or larger (plotted as stars and specifically labeled on the epicenter map) are described below. There was one earthquake reported felt during the report period. (Note: All times indicated below are local time, which was Mountain Standard Time for the report period.) Additional information on earthquakes within the Utah region is available from the University of Utah Seismograph Stations.

Earthquakes of Magnitude 3.0 or Larger (or Felt)

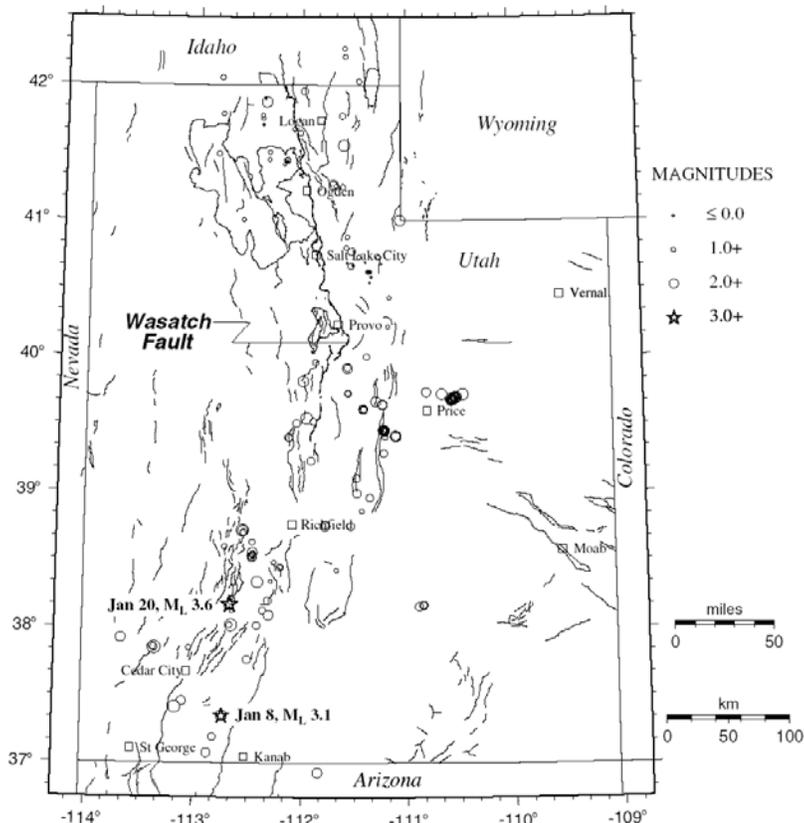
ML 3.1 Jan. 8 10:26 a.m. 7 mi WNW of Orderville, UT

ML 3.6 Jan. 20 10:20 a.m. 7 mi S of Beaver, UT (felt in Beaver)

Other Notable Seismicity (see map)

Seismic events that are densely clustered to the southwest of Price and scattered immediately to its north spatially coincide with sites of active underground coal mining in the eastern Wasatch Plateau and Book Cliffs, respectively, and are interpreted to be mining-related. These include a total of 88 located shocks.

UTAH EARTHQUAKES January 1 - March 31, 2002



Earthquake epicenters, located by the University of Utah Seismograph Stations, superposed on a map of Quaternary (geologically young) faults compiled by the Utah Geological Survey. The Wasatch fault is shown in bold. Earthquakes of magnitude 3.0 and larger are specially indicated.

UNIVERSITY OF UTAH QUARTERLY SEISMICITY SUMMARY

EARTHQUAKE ACTIVITY IN THE UTAH REGION April 1 – June 30, 2002

by Susan J. Nava
with significant contributions by
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During the three-month period from April 1 through June 30, 2002, the University of Utah Seismograph Stations located 166 earthquakes within the Utah region (see accompanying epicenter map). The total includes two earthquakes in the magnitude 3 range and 41 earthquakes in the magnitude 2 range.

Earthquakes that have magnitudes of 3.0 or larger (plotted as stars and specifically labeled on the epicenter map) are described below. There were no earthquakes reported felt during the report period. (Note: All times indicated below are local time, which was Mountain Standard Time from April 1 to 6 and Mountain Daylight Time for the remainder of the report period.) Additional information on earthquakes within the Utah region is available from the University of Utah Seismograph Stations.

Earthquakes of Magnitude 3.0 or Larger (or Felt)

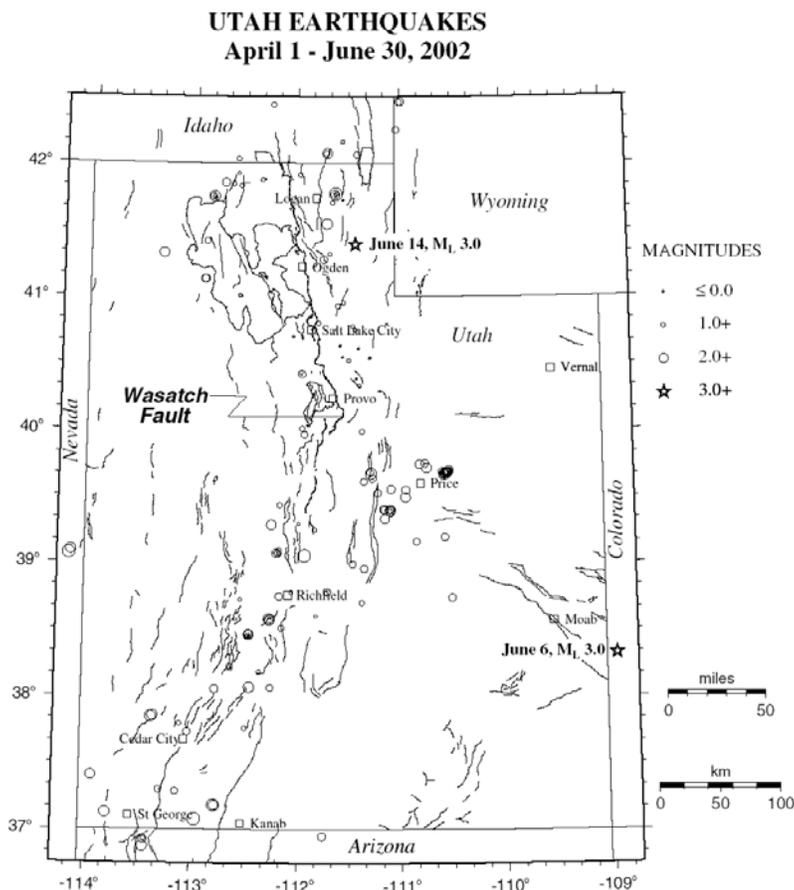
ML 3.0 June 6 6:29 a.m. 12 mi WNW of Uravan, CO

ML 3.0 June 14 1:45 a.m. 20 mi NE of Huntsville, UT

(ShakeMap available, see <http://quake.utah.edu/shake/archive/2002.html>)

Other Notable Seismicity (see map)

Seismic events that are densely clustered to the southwest of Price and scattered immediately to its north spatially coincide with sites of active underground coal mining in the eastern Wasatch Plateau and Book Cliffs, respectively, and are interpreted to be mining-related. These include a total of 45 located shocks.



Earthquake epicenters, located by the University of Utah Seismograph Stations, superposed on a map of Quaternary (geologically young) faults compiled by the Utah Geological Survey. The Wasatch fault is shown in bold. Earthquakes of magnitude 3.0 and larger are specially indicated.



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WSSPC ANNUAL CONFERENCE

BY BOB CAREY

The theme for the 2003 Western State Seismic Policy Council Annual Conference, held in Portland, Oregon, was "Toward Earthquake Loss Reduction: Developing Effective Communication, Realistic Strategies, and Successful Mitigation Actions for Your Community." The conference objective was to learn about fine-tuned efforts from those who have effectively reduced the earthquake risk. Successful efforts can be seen in laws, local ordinances, bridges, banks, libraries, fire stations, schools and homes in the western communities. By understanding clearly how these successes were completed, it will allow the individuals to better affect risk reduction in their areas of responsibility.

Presentations at the conference were on Loss Awareness and Understanding the Risk, Effective Communications and Getting Community Buy-in, Successful Case Histories, and The Loss Reduction Process-The Community Experience. The conference ended with a panel discussion from four breakout groups on Building Codes, Retrofit Ordinances, Adopting Local Standards, and Motivating the Business Community.

A local highlight from the conference was Salt Lake City School District receiving WSSPC's Award in Excellence in the category of Mitigation Efforts. The award was given for the District's study on "Seismic Design Criteria of Non-Structural Systems for New and Existing School Facilities. Congratulations to Gregg Smith, Director of Buildings and Grounds and the Salt Lake City School District.